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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 07/28/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/758,321

Applicant(s)

NIIYA, NORIMASA

Examiner

Barry W Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mano et al (5,319,700 hereinafter Mano) in view of Davis et al (5,491,720 hereinafter Davis).

Regarding claims 1, 5, 9-10, 12 and 14. Mano teaches a an interface unit (9,11, 13, 15, 17 and 19 figure 1, col. 3 lines 1-25) capable of being connected to a main unit of a key telephone system (1 figure 1), the main unit connecting a telephone terminal (27 figure 1) to a telephone network (25 figure 1), the interface unit being adapted to be communicated with the telephone terminal at one of plural transmission speeds (col. 1 lines 13-65, see figure 4 wherein "PING-PONG" communications is employed by using the D-Channel to select "low level" or "high level"--column 6 line 66+), the interface unit comprising:

Mano does not explicitly show using a first transmitter and a second transmitter (see paper number 7, Amendment "A", dated 12/2/02 first full paragraph on page 5 of Applicant's remarks).

Davis teaches method and apparatus for automatically determining data communication device type and corresponding transmission rate (Title, abstract). Davis teaches transmit and receive hardware are connected to the transmission line wherein a sequence of different signals in either a first communication protocol or a second protocol are transmitted from a first data device and the transmission line is monitored for a response signal from a second device so that data communication device type and

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transmission speed can be determined enabling the first and second device to operate at an optimal transmission speed (abstract, columns 1-9 including independent claim 1). Davis also discloses that it is well known in the art to use separate transmit and receive hardware when negotiating data speed (column 1 line 33 – column 2 line 35). Davis does not limit his invention to using two separate transmitters but instead saves on hardware by using common transmit and receive hardware (column 1 line 65 – column 2 line 2).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the invention as taught by Mano to automatically determine type of communication speed required for communication between first device and second device as taught by Davis so that the first and second device may operate at an optimal transmission speed without duplicating communication hardware as taught by Davis (column 1 line 65 – column 2 line 2).

Regarding claims 2-3, 6-7. Mano does not disclose the second speed is faster than the first speed, the plural transmission speeds includes at least two speeds, or the second transmitter transmits the speed change request.

Davis teaches method and apparatus for automatically determining data communication device type and corresponding transmission rate (Title, abstract). Davis teaches transmit and receive hardware are connected to the transmission line wherein a sequence of different signals in either a first communication protocol or a second protocol are transmitted from a first data device and the transmission line is monitored

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for a response signal from a second device so that data communication device type and transmission speed can be determined enabling the first and second device to operate at an optimal transmission speed (abstract, columns 1-9 including independent claim 1). Davis also discloses that it is well known in the art to use separate transmit and receive hardware when negotiating data speed (column 1 line 33 – column 2 line 35). Davis teaches first speed greater than second speed wherein a plurality of speeds includes at least two speeds (see column 1 wherein at least four speeds are listed----“9600 bits per second”, etc.). Davis does not limit his invention to using two separate transmitters but instead saves on hardware by using common transmit and receive hardware (column 1 line 65 – column 2 line 2).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the invention as taught by Mano to automatically determine type of communication speed required for communication between first device and second device as taught by Davis so that the first and second device may operate at an optimal transmission speed without duplicating communication hardware as taught by Davis (column 1 line 65 – column 2 line 2).

Regarding claims 4 and 8. Mano does not explicitly show that the second transmitter transmits the speed request change.

Davis teaches method and apparatus for automatically determining data communication device type and corresponding transmission rate (Title, abstract). Davis teaches transmit and receive hardware are connected to the transmission line wherein a

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sequence of different signals in either a first communication protocol or a second protocol are transmitted from a first data device and the transmission line is monitored for a response signal from a second device so that data communication device type and transmission speed can be determined enabling the first and second device to operate at an optimal transmission speed (abstract, columns 1-9 including independent claim 1). Davis also discloses that it is well known in the art to use separate transmit and receive hardware when negotiating data speed (column 1 line 33 – column 2 line 35). Davis teaches first speed greater than second speed wherein a plurality of speeds includes at least two speeds (see column 1 wherein at least four speeds are listed----“9600 bits per second”, etc.). Davis does not limit his invention to using two separate transmitters but instead saves on hardware by using common transmit and receive hardware (column 1 line 65 – column 2 line 2).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the invention as taught by Mano to automatically determine type of communication speed required for communication between first device and second device as taught by Davis so that the first and second device may operate at an optimal transmission speed without duplicating communication hardware as taught by Davis (column 1 line 65 – column 2 line 2).

Regarding claims 11 and 13. Mano does not disclose causing the telephone terminal set an operation speed to the optimum speed based on the detected result of the detector.

Davis teaches method and apparatus for automatically determining data communication device type and corresponding transmission rate (Title, abstract). Davis teaches transmit and receive hardware are connected to the transmission line wherein a sequence of different signals in either a first communication protocol or a second protocol are transmitted from a first data device and the transmission line is monitored for a response signal from a second device so that data communication device type and transmission speed can be determined enabling the first and second device to operate at an optimal transmission speed (abstract, columns 1-9 including independent claim 1). Davis also discloses that it is well known in the art to use separate transmit and receive hardware when negotiating data speed (column 1 line 33 – column 2 line 35). Davis teaches first speed greater than second speed wherein a plurality of speeds includes at least two speeds (see column 1 wherein at least four speeds are listed----“9600 bits per second”, etc.). Davis does not limit his invention to using two separate transmitters but instead saves on hardware by using common transmit and receive hardware (column 1 line 65 – column 2 line 2).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the invention as taught by Mano to automatically determine type of communication speed required for communication between first device and second device as taught by Davis so that the first and second

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device may operate at an optimal transmission speed without duplicating communication hardware as taught by Davis (column 1 line 65 – column 2 line 2).

***Response to Arguments***

2. Applicant's arguments filed 5/9/03 have been fully considered but they are not persuasive.

a) Regarding Applicant's general argument appearing on page 3 wherein Applicant's contend that Mano does not teach or suggest a first transmitter and second transmitter.

The Examiner respectfully disagrees. See figure 2 wherein Mano uses two B-channels and one D-channel (i.e. ISDN protocol). One of minimum skill in the art would readily recognize that ISDN comes in two basic flavors---BRI, which is 144,000 bits per second and designed for the desktop, and PRI, which is 1,544,000 bits per second wherein PRI is designed for telephone switches, computer telephony and voice processing systems.

In other words, Mano figure 2 shows old type key telephony but lacks expansion capability. The only limitation missing is that Mano does not explicitly show using a first transmitter and a second transmitter (see paper number 7, Amendment "A", dated 12/2/02 first full paragraph on page 5 of Applicant's remarks). Davis teaches method and apparatus for automatically determining data communication device type and corresponding transmission rate (Title, abstract). Davis teaches transmit and receive hardware are connected to the transmission line wherein a sequence of different signals in either a first communication protocol or a second protocol are transmitted from a first



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data device and the transmission line is monitored for a response signal from a second device so that data communication device type and transmission speed can be determined enabling the first and second device to operate at an optimal transmission speed (abstract, columns 1-9 including independent claim 1). Davis also discloses that it is well known in the art to use separate transmit and receive hardware when negotiating data speed (column 1 line 33 – column 2 line 35). Davis does not limit his invention to using two separate transmitters but instead saves on hardware by using common transmit and receive hardware (column 1 line 65 – column 2 line 2). Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the invention as taught by Mano to automatically determine type of communication speed required for communication between first device and second device as taught by Davis so that the first and second device may operate at an optimal transmission speed without duplicating communication hardware as taught by Davis (column 1 line 65 – column 2 line 2).

b) Regarding Applicant's general comment at the bottom of page 4 wherein Applicant's argue that Davis uses two communications devices for determining a transmission speed but fail to explain how Applicant's invention sends "query signal" and "a speed change request" without two devices communicating to one another.

The Examiner notes that Mano indeed teaches modem technology. Mano figure 2 shows "PING PONG" transmission, which is common on control channel (i.e. D-channel of ISDN). Davis monitors/scans the most commonly used modems first. For

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example, if a 390 Hz response tone is received, a particular data communication device type and transmission speed is determined (see rejection listed above).

c) Regarding Applicant's ending remarks starting on page 5 and continuing to page 7 wherein Applicant's contend that the Examiner does not provide for a motivation to combine Mano and Davis.

The motivation is self-evident. In other words, Mano figure 2 shows old type key telephony but lacks expansion capability. The only limitation missing is that Mano does not explicitly show using a first transmitter and a second transmitter (see paper number 7, Amendment "A", dated 12/2/02 first full paragraph on page 5 of Applicant's remarks). Davis teaches method and apparatus for automatically determining data communication device type and corresponding transmission rate (Title, abstract). Davis teaches transmit and receive hardware are connected to the transmission line wherein a sequence of different signals in either a first communication protocol or a second protocol are transmitted from a first data device and the transmission line is monitored for a response signal from a second device so that data communication device type and transmission speed can be determined enabling the first and second device to operate at an optimal transmission speed (abstract, columns 1-9 including independent claim 1). Davis also discloses that it is well known in the art to use separate transmit and receive hardware when negotiating data speed (column 1 line 33 – column 2 line 35). Davis does not limit his invention to using two separate transmitters but instead saves on hardware by using common transmit and receive hardware (column 1 line 65 – column 2 line 2). Therefore, it would have been obvious for any one of ordinary skill in the art at

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the time the invention was made to modify the invention as taught by Mano to automatically determine type of communication speed required for communication between first device and second device as taught by Davis so that the first and second device may operate at an optimal transmission speed without duplicating communication hardware as taught by Davis (column 1 line 65 – column 2 line 2).

### ***Conclusion***

**3. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**4.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor whose telephone number is (703) 305-4811. The examiner can normally be reached on Monday-Friday from 6:30am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 customer service Office whose telephone number is (703) 306-0377.

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600